

THE ASTROPHYSICAL JOURNAL  
CONTENTS OF VOLUME 536, PART 1

2000 JUNE 10, NUMBER 1

	<i>Page</i>
GAMMA-RAY BURSTS AS A PROBE OF THE VERY HIGH REDSHIFT UNIVERSE <i>Donald Q. Lamb &amp; Daniel E. Reichart</i>	1
DISCOVERY OF NINE Ly $\alpha$ EMITTERS AT REDSHIFT $z \sim 3.1$ USING NARROWBAND IMAGING AND VLT SPECTROSCOPY <i>R.-P. Kudritzki, R. H. Méndez, J. J. Feldmeier, R. Ciardullo, G. H. Jacoby, K. C. Freeman, M. Arnaboldi, M. Capaccioli, O. Gerhard, &amp; H. C. Ford</i>	19
RELATIVISTIC CORRECTIONS TO THE SUNYAEV-ZELDOVICH EFFECT FOR CLUSTERS OF GALAXIES. IV. ANALYTIC FITTING FORMULA FOR THE NUMERICAL RESULTS <i>Satoshi Nozawa, Naoki Itoh, Youhei Kawana, &amp; Yashuharu Kohyama</i>	31
NICMOS IMAGING OF THE DAMPED Ly $\alpha$ ABSORBER AT $z = 1.89$ TOWARD LBQS 1210+1731: CONSTRAINTS ON SIZE AND STAR FORMATION RATE <i>Varsha P. Kulkarni, John M. Hill, Glenn Schneider, Ray J. Weymann, Lisa J. Storrie-Lombardi, Marcia J. Rieke, Rodger I. Thompson, &amp; Buell T. Jannuzi</i>	36
TESTS OF THE ACCELERATING UNIVERSE WITH NEAR-INFRARED OBSERVATIONS OF A HIGH-REDSHIFT TYPE Ia SUPERNOVA <i>Adam G. Riess, Alexei V. Filippenko, Michael C. Liu, Peter Challis, Alejandro Clocchiatti, Alan Diercks, Peter M. Garnavich, Craig J. Hogan, Saurabh Jha, Robert P. Kirshner, B. Leibundgut, M. M. Phillips, David Reiss, Brian P. Schmidt, Robert A. Schommer, R. Chris Smith, J. Spyromilio, Christopher Stubbs, Nicholas B. Suntzeff, John Tonry, Patrick Woudt, Robert J. Brunner, Arjun Dey, Roy Gal, James Graham, James Larkin, Steve C. Odewahn, &amp; Ben Oppenheimer</i>	62
ON THE DETERMINATION OF STAR FORMATION RATES IN EVOLVING GALAXY POPULATIONS <i>J. Afonso, L. Cram, &amp; B. Mobasher</i>	68
X-RAY TOTAL MASS ESTIMATE FOR THE NEARBY RELAXED CLUSTER A3571 <i>J. Nevalainen, M. Markevitch, &amp; W. Forman</i>	73
WEAK LENSING MEASUREMENTS: A REVISITED METHOD AND APPLICATION TO HUBBLE SPACE TELESCOPE IMAGES <i>Jason Rhodes, Alexandre Refregier, &amp; Edward J. Groth</i>	79
THE NATURE OF ASSOCIATED ABSORPTION AND THE ULTRAVIOLET-X-RAY CONNECTION IN 3C 288.1 <i>Frederick W. Hamann, Hagai Netzer, &amp; Joseph C. Shields</i>	101
THE GALAXY-WEIGHTED SMALL-SCALE VELOCITY DISPERSION OF THE LAS CAMPANAS REDSHIFT SURVEY <i>Jonathan E. Baker, Marc Davis, &amp; Huan Lin</i>	112
COSMOS: A HYBRID N-BODY/HYDRODYNAMICS CODE FOR COSMOLOGICAL PROBLEMS <i>P. M. Ricker, S. Dodelson, &amp; D. Q. Lamb</i>	122
ON THE INTERNAL ABSORPTION OF GALAXY CLUSTERS <i>John S. Arabadjis &amp; Joel N. Bregman</i>	144
NEW TECHNIQUES FOR RELATING DYNAMICALLY CLOSE GALAXY PAIRS TO MERGER AND ACCRETION RATES: APPLICATION TO THE SECOND SOUTHERN SKY REDSHIFT SURVEY <i>D. R. Patton, R. G. Carlberg, R. O. Marzke, C. J. Pritchet, L. N. da Costa, &amp; P. S. Pellegrini</i>	153
STAR FORMATION RATES IN DISK GALAXIES AND CIRCUMNUCLEAR STARBURSTS FROM CLOUD COLLISIONS <i>Jonathan C. Tan</i>	173
EVIDENCE FOR A SUPERNOVA IN REANALYZED OPTICAL AND NEAR-INFRARED IMAGES OF GRB 970228 <i>T. J. Galama, N. Tanvir, P. M. Vreeswijk, R. A. M. J. Wijers, P. J. Groot, E. Rol, J. van Paradijs, C. Kouveliotou, A. S. Fruchter, N. Masetti, H. Pedersen, B. Margon, E. W. Deutsch, M. Metzger, L. Armus, S. Klose, &amp; B. Stecklum</i>	185

	Page
WIND INTERACTION MODELS FOR GAMMA-RAY BURST AFTERGLOWS: THE CASE FOR TWO TYPES OF PROGENITORS <i>Roger A. Chevalier &amp; Zhi-Yun Li</i>	195
THE RELATIVISTIC IRON LINE PROFILE IN THE SEYFERT 1 GALAXY IC 4329A <i>C. Done, G. M. Madejski, &amp; P. T. Życki</i>	213
INTERSTELLAR AND CIRCUMSTELLAR OPTICAL AND ULTRAVIOLET LINES TOWARD SN 1998S <i>David V. Bowen, Katherine C. Roth, David M. Meyer, &amp; J. Chris Blades</i>	225
EVIDENCE FOR ASPHERICITY IN THE TYPE II <sub>n</sub> SUPERNOVA SN 1998S <i>Douglas C. Leonard, Alexei V. Filippenko, Aaron J. Barth, &amp; Thomas Matheson</i>	239
THE STRUCTURE OF THE VIRGO CLUSTER FROM SURFACE BRIGHTNESS FLUCTUATIONS IN HUBBLE SPACE TELESCOPE IMAGES <i>Eric H. Neilsen, Jr., &amp; Zlatan I. Tsvetanov</i>	255
JET-INDUCED STAR FORMATION IN CENTAURUS A <i>Jeremy R. Mould, Alex Ridgewell, John S. Gallagher III, Michael S. Bessell, Stefan Keller, Daniela Calzetti, John T. Clarke, John T. Trauger, Carl Grillmair, Gilda E. Ballester, Christopher J. Burrows, John Krist, David Crisp, Robin Evans, Richard Griffiths, J. Jeff Hester, John G. Hoessel, Jon A. Holtzman, Paul A. Scowen, Karl R. Stapelfeldt, Ragendra Sahai, Alan Watson, &amp; Vicki Meadows</i>	266
ON THE THERMAL INSTABILITY IN A CONTRACTING CLOUD AND FORMATION OF A BOUND CLUSTER <i>Motomichi Tashiro &amp; Ryoichi Nishi</i>	277
LOCALLY OPTIMALLY EMITTING CLOUDS AND THE VARIABLE BROAD EMISSION LINE SPECTRUM OF NGC 5548 <i>Kirk T. Korista &amp; Michael R. Goad</i>	284
ELECTRON ACCELERATION AND TIME VARIABILITY OF HIGH-ENERGY EMISSION FROM BLAZARS <i>Masaaki Kusunose, Fumio Takahara, &amp; Hui Li</i>	299
LIMITS ON THE SPATIAL EXTENT OF ACTIVE GALACTIC NUCLEI MEASURED WITH THE FINE GUIDANCE SENSORS OF THE HUBBLE SPACE TELESCOPE <i>Richard N. Hook, Ethan J. Schreier, &amp; George Miley</i>	308
THE DISTRIBUTION OF STELLAR ORBITS IN THE GIANT ELLIPTICAL GALAXY NGC 2320 <i>Nicolas Cretton, Hans-Walter Rix, &amp; P. Tim de Zeeuw</i>	319
INSTABILITY OF THE STOCHASTIC GALACTIC MAGNETIC FIELD <i>E. N. Parker &amp; J. R. Jokipii</i>	331
PHYSICAL CONDITIONS, GRAIN TEMPERATURES, AND ENHANCED VERY SMALL GRAINS IN BARNARD'S LOOP <i>Carl Heiles, L. M. Haffner, R. J. Reynolds, &amp; S. L. Tufte</i>	335
AN INVENTORY OF INTERSTELLAR ICES TOWARD THE EMBEDDED PROTOSTAR W33A <i>E. L. Gibb, D. C. B. Whittet, W. A. Schutte, A. C. A. Boogert, J. E. Chiar, P. Ehrenfreund, P. A. Gerakines, J. V. Keane, A. G. G. M. Tielens, E. F. van Dishoeck, &amp; O. Kerkhof</i>	347
DENSE MOLECULAR CLOUDS IN THE GALACTIC CENTER REGION. II. STATISTICAL PROPERTIES OF THE GALACTIC CENTER MOLECULAR CLOUDS <i>Atsushi Miyazaki &amp; Masoto Tsuboi</i>	357
A TOY MODEL OF JOINT MOLECULAR CLOUDS <i>Anthony Allen &amp; Frank H. Shu</i>	368
THERMALLY DOMINATED CARBON MONOXIDE EMISSION IN THE TAURUS MOLECULAR CLOUD COMPLEX <i>E. F. Ladd &amp; K. R. Covey</i>	380
A C <sup>18</sup> O SURVEY TOWARD ULTRACOMPACT H II REGIONS <i>P. Hofner, F. Wyrowski, C. M. Walmsley, &amp; E. Churchwell</i>	393
INFALL SIGNATURES IN SPECTRAL LINE PROFILES OF PROTOSTELLAR ENVELOPES <i>Hirohiko Masunaga &amp; Shu-ichiro Inutsuka</i>	406
ISSUES REGARDING THE BLANDFORD-ZNAJEK PROCESS AS A GAMMA-RAY BURST INNER ENGINE <i>Hyun Kyu Lee, G. E. Brown, &amp; R. A. M. J. Wijers</i>	416
FLUORESCENT EXCITATION OF SPECTRAL LINES IN PLANETARY NEBULAE <i>Guo Xin Chen &amp; Anil K. Pradhan</i>	420
DUST IN THE 55 CANCRI PLANETARY SYSTEM <i>Ray Jayawardhana, Wayne S. Holland, Jane S. Greaves, William R. F. Dent, Geoffrey W. Marcy, Lee W. Hartmann, &amp; Giovanni G. Fazio</i>	425

# CONTENTS

v

ANGULAR MOMENTUM TRANSFER IN DYNAMICALLY COLLAPSING GASEOUS DISKS <i>Hideko Nomura &amp; Shin Mineshige</i>	Page 429
THE CHEMICAL COMPOSITION OF CARBON STARS. II. THE J-TYPE STARS <i>C. Abia &amp; J. Isern</i>	438
RXTE OBSERVATIONS OF THE X-RAY BINARY 2S 0114+650 <i>T. A. Hall, J. P. Finley, R. H. D. Corbet, &amp; R. C. Thomas</i>	450
PARALLEL MEAN FREE PATH OF SOLAR COSMIC RAYS <i>B. R. Ragot</i>	455
A MULTIGROUP METHOD FOR RADIATION WITH SCATTERING IN THREE-DIMENSIONAL HYDRODYNAMIC SIMULATIONS <i>R. Skartlien</i>	465
THE CO FUNDAMENTAL VIBRATION-ROTATION LINES IN THE SOLAR SPECTRUM. II. NON-LTE TRANSFER MODELING IN STATIC AND DYNAMIC ATMOSPHERES <i>H. Uitenbroek</i>	481
THE THERMAL NONEQUILIBRIUM OF PROMINENCES <i>S. K. Antichos, P. J. MacNeice, &amp; D. S. Spicer</i>	494
DITHERING STRATEGIES FOR EFFICIENT SELF-CALIBRATION OF IMAGING ARRAYS <i>Richard G. Arendt, D. J. Fixsen, &amp; S. Harvey Moseley</i>	500
ERRATUM	
A NEW APPROACH TO STATISTICS OF COSMOLOGICAL GAMMA-RAY BURSTS <i>M. Böttcher &amp; C. D. Dermer</i>	513
2000 JUNE 20, NUMBER 2	
PECULIAR VELOCITIES OF NONLINEAR STRUCTURE: VOIDS IN McVITTIE SPACETIME <i>Nobuyuki Sakai &amp; Paul Haines</i>	515
THE VARIATION OF GAS MASS DISTRIBUTION IN GALAXY CLUSTERS: EFFECTS OF PREHEATING AND SHOCKS <i>Yutaka Fujita &amp; Fumio Takahara</i>	523
FLUX-AVERAGING ANALYSIS OF TYPE Ia SUPERNOVA DATA <i>Yun Wang</i>	531
CHEMICAL EVOLUTION OF DAMPED Ly $\alpha$ GALAXIES: THE [S/Zn] ABUNDANCE RATIO AT REDSHIFT $\geq 2$ <i>Miriam Centurión, Piercarlo Bonifacio, Paolo Molaro, &amp; Giovanni Vladilo</i>	540
TENTATIVE DETECTION OF THE COSMIC INFRARED BACKGROUND AT 2.2 AND 3.5 MICRONS USING GROUND-BASED AND SPACE-BASED OBSERVATIONS <i>V. Gorjian, E. L. Wright, &amp; R. R. Chary</i>	550
MEASURING THE DIFFUSE OPTICAL LIGHT IN ABELL 1651 <i>Anthony H. Gonzalez, Ann I. Zabludoff, Dennis Zaritsky, &amp; Julianne J. Dalcanton</i>	561
BAYESIAN PHOTOMETRIC REDSHIFT ESTIMATION <i>Narciso Benítez</i>	571
HUBBLE SPACE TELESCOPE OBSERVATIONS OF 10 TWO-IMAGE GRAVITATIONAL LENSES <i>J. Lehar, E. E. Falco, C. S. Kochanek, B. A. McLeod, J. A. Muñoz, C. D. Impey, H.-W. Rix, C. R. Keeton, &amp; C. Y. Peng</i>	584
EMISSION-LINE GALAXY SURVEYS AS PROBES OF THE SPATIAL DISTRIBUTION OF DWARF GALAXIES. I. THE UNIVERSITY OF MICHIGAN SURVEY <i>Janice C. Lee, John J. Salzer, Daniel A. Law, &amp; Jessica L. Rosenberg</i>	606
THE EFFECTS OF GASDYNAMICS, COOLING, STAR FORMATION, AND NUMERICAL RESOLUTION IN SIMULATIONS OF CLUSTER FORMATION <i>Geraint F. Lewis, Arif Babul, Neal Katz, Thomas Quinn, Lars Hernquist, &amp; David H. Weinberg</i>	623
DIFFUSE IONIZED GAS IN A SAMPLE OF EDGE-ON GALAXIES AND COMPARISONS WITH H I AND RADIO CONTINUUM EMISSION <i>Joseph A. Collins, Richard J. Rand, Nebojsa Duric, &amp; René A. M. Walterbos</i>	645
HYDRODYNAMIC DRAG ON A COMPACT STAR ORBITING A SUPERMASSIVE BLACK HOLE <i>Ramesh Narayan</i>	663
GENERAL RELATIVISTIC SIMULATIONS OF EARLY JET FORMATION IN A RAPIDLY ROTATING BLACK HOLE MAGNETOSPHERE <i>Shinji Koide, David L. Meier, Kazunari Shibata, &amp; Takahiro Kudoh</i>	668

	Page
THE ACTIVE JET IN NGC 4258 AND ITS ASSOCIATED SHOCKS <i>G. Cecil, L. J. Greenhill, C. G. DePree, N. Nagar, A. S. Wilson, M. A. Dopita, I. Pérez-Fournon, A. L. Argon, &amp; J. M. Moran</i>	675
ISO-SWS SPECTROSCOPY OF NGC 1068 <i>D. Lutz, E. Sturm, R. Genzel, A. F. M. Moorwood, T. Alexander, H. Netzer, &amp; A. Sternberg</i>	697
INFRARED SPECTROSCOPY OF NGC 1068: PROBING THE OBSCURED IONIZING AGN CONTINUUM <i>Tal Alexander, Dieter Lutz, Eckhard Sturm, Reinhard Genzel, Amiel Sternberg, &amp; Hagai Netzer</i>	710
A LONG OBSERVATION OF NGC 5548 BY <i>BeppoSAX</i> : THE HIGH-ENERGY CUTOFF, INTRINSIC SPECTRAL VARIABILITY, AND A TRULY WARM ABSORBER <i>Fabrizio Nicastro, Luigi Piro, Alessandra De Rosa, Marco Feroci, Paola Grandi, Fabrizio Fiore, Martin Elvis, Francesco Haardt, Jelle Kaastra, Angela Malizia, Laura Maraschi, Giorgio Matt, G. Cesare Perola, &amp; Pierre Olivier Petrucci</i>	718
TEMPORAL AND SPECTRAL VARIABILITIES OF HIGH-ENERGY EMISSION FROM BLAZARS USING SYNCHROTRON SELF-COMPTON MODELS <i>Hui Li &amp; Masaaki Kusunose</i>	729
MULTIWAVELENGTH OBSERVATIONS OF MARKARIAN 501 DURING THE 1997 HIGH STATE <i>D. Petry, M. Böttcher, V. Connaughton, A. Lahteenmaki, T. Pursimo, C. M. Raiteri, F. Schröder, A. Sillanpää, G. Sobrito, L. Takalo, H. Teräsanta, G. Tosti, &amp; M. Villata</i>	742
COLD ATOMIC GAS IN THE SMALL MAGELLANIC CLOUD <i>John M. Dickey, Ulrich Mebold, Snezana Stanimirovic, &amp; Lister Staveley-Smith</i>	756
THE PRIMORDIAL HELIUM ABUNDANCE: TOWARD UNDERSTANDING AND REMOVING THE COSMIC SCATTER IN THE $dY/dZ$ RELATION <i>D. R. Ballantyne, G. J. Ferland, &amp; P. G. Martin</i>	773
<i>BeppoSAX</i> OBSERVATIONS OF GRB 980425: DETECTION OF THE PROMPT EVENT AND MONITORING OF THE ERROR BOX <i>E. Pian, L. Amati, L. A. Antonelli, R. C. Butler, E. Costa, G. Cusumano, J. Danziger, M. Feroci, F. Fiore, F. Frontera, P. Giommi, N. Masetti, J. M. Muller, L. Nicastro, T. Oosterbroek, M. Orlandini, A. Owens, E. Palazzi, A. Parmar, L. Piro, J. J. M. in 't Zand, A. Castro-Tirado, A. Coletta, D. Dal Fiume, S. Del Sordo, J. Heise, P. Soffitta, &amp; V. Torroni</i>	778
RADIATION SPECTRA FROM ADVECTION-DOMINATED ACCRETION FLOWS IN A GLOBAL MAGNETIC FIELD <i>Motoki Kino, Osamu Kaburaki, &amp; Naohiro Yamazaki</i>	788
THE MACHO PROJECT SAMPLE OF GALACTIC BULGE HIGH-AMPLITUDE $\delta$ SCUTI STARS: PULSATION BEHAVIOR AND STELLAR PROPERTIES <i>C. Alcock, R. A. Allsman, D. R. Alves, T. S. Axelrod, A. C. Becker, D. P. Bennett, K. H. Cook, K. C. Freeman, M. Geha, K. Griest, M. J. Lehner, S. L. Marshall, B. J. McNamara, D. Minniti, C. Nelson, B. A. Peterson, P. Popowski, M. R. Pratt, P. J. Quinn, A. W. Rodgers, W. Sutherland, M. R. Templeton, T. Vandehei, &amp; D. L. Welch (The MACHO Collaboration)</i>	798
NARROWBAND MID-INFRARED IMAGES OF THE H II COMPLEX G34.3+0.2 <i>M. F. Campbell, C. A. Garland, L. K. Deutsch, J. L. Hora, G. G. Fazio, A. Dayal, &amp; W. F. Hoffmann</i>	816
INFRARED PROPERTIES OF MOLECULAR CIRRUS. II. CLOUD-TO-CLOUD VARIATIONS IN GRAPHITE AND POLYCYCLIC AROMATIC HYDROCARBON CONTEST <i>Frances Verter, Loris Magnani, Eli Dwek, &amp; Lee J Rickard</i>	831
A SPECTRAL LINE STUDY OF SERPENS S68 FIRS1 REGION <i>Joseph P. McMullin, Lee G. Mundy, Geoffrey A. Blake, Bruce A. Wilking, Jeffrey G. Mangum, &amp; William B. Latter</i>	845
PROBING THE MAGNETIC FIELD WITH MOLECULAR ION SPECTRA <i>Martin Houde, Pierre Bastien, Ruisheng Peng, Thomas G. Phillips, &amp; Hiroshige Yoshida</i>	857
DEEP RADIO IMAGING OF GLOBULAR CLUSTERS AND THE CLUSTER PULSAR POPULATION <i>A. S. Fruchter &amp; W. M. Goss</i>	865
RADIO WAVE EMISSIONS DUE TO GRAVITATIONAL RADIATION <i>Mattias Marklund, Gert Brodin, &amp; Peter K. S. Dunsby</i>	875
THE VISUAL ORBIT AND EVOLUTIONARY STATE OF 12 BOOTIS <i>A. F. Boden, M. J. Creech-Eakman, &amp; D. Queloz</i>	880
SAX J1810.8-2609: A NEW HARD X-RAY BURSTING TRANSIENT <i>L. Natalucci, A. Bazzano, M. Cocchi, P. Ubertini, J. Heise, E. Kuulkers, J. J. M. in 't Zand, &amp; M. J. S. Smith</i>	891
THE HOT, DIFFUSE GAS IN A DENSE CLUSTER OF MASSIVE STARS <i>J. Cantó, A. C. Raga, &amp; L. F. Rodriguez</i>	896
SIX NEW PLANETS FROM THE KECK PRECISION VELOCITY SURVEY <i>Steven S. Vogt, Geoffrey W. Marcy, R. Paul Butler, &amp; Kevin Apps</i>	902

# CONTENTS

vii

CONSTRAINTS ON THE STEADY STATE $r$ -MODE AMPLITUDE IN NEUTRON STAR TRANSIENTS <i>Edward F. Brown &amp; Greg Ushomirsky</i>	Page 915
THE ATMOSPHERE OF MIRA VARIABLES: A VIEW WITH THE <i>HUBBLE SPACE TELESCOPE</i> <i>Donald G. Luttermoser</i>	923
THE ROLE OF ELECTRON CAPTURES IN CHANDRASEKHAR-MASS MODELS FOR TYPE Ia SUPERNOVAE <i>Franziska Brachwitz, David J. Dean, W. Raphael Hix, Koichi Iwamoto, Karlheinz Langanke, Gabriel Martínez-Pinedo, Ken'ichi Nomoto, Michael R. Strayer, Friedrich-K. Thielemann, &amp; Hideyuki Umeda</i>	934
<i>ROSAT</i> OBSERVATIONS OF THE VELA PULSAR <i>F. D. Seward, M. A. Alpar, C. Flanagan, Ü. Kızıloğlu, C. Markwardt, P. McCulloch, &amp; H. Ögelman</i>	948
DISSOCIATIVE CHARGE TRANSFER BETWEEN GROUND-STATE $\text{He}^+$ AND CO AT ELECTRON-VOLT ENERGIES <i>Victor H. S. Kwong, D. Chen, &amp; Z. Fang</i>	954
THE EXTREME-ULTRAVIOLET SOLAR IRRADIANCE SPECTRUM OBSERVED WITH THE CORONAL DIAGNOSTIC SPECTROMETER (CDS) ON <i>SOHO</i> <i>P. Brekke, W. T. Thompson, T. N. Woods, &amp; F. G. Eparvier</i>	959
COMPARISON OF THE 1998 APRIL 29 M6.8 AND 1998 NOVEMBER 5 M8.4 FLARES <i>Haimin Wang, Philip R. Goode, Carsten Denker, Guo Yang, Vasyl Yurchishin, Nariaki Nitta, Joseph B. Gurman, Chris St. Cyr, &amp; Alexander G. Kosovichev</i>	971
NUMERICAL SIMULATIONS OF BUOYANT MAGNETIC FLUX TUBES <i>J. G. Wissink, P. C. Matthews, D. W. Hughes, &amp; M. R. E. Proctor</i>	982
STARK WIDTH MEASUREMENTS OF Ne II SPECTRAL LINES <i>J. A. del Val, J. A. Aparicio, &amp; S. Mar</i>	998
ERRATUM STANDARD SOLAR MODELS IN THE LIGHT OF NEW HELIOSEISMIC CONSTRAINTS. II. MIXING BELOW THE CONVECTIVE ZONE <i>A. S. Brun, S. Turck-Chièze, &amp; J. P. Zahn</i>	1005
ABSTRACTS OF THE ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES, 2000 JULY	1006
INDEX TO VOLUMES 534-536, PARTS 1 AND 2	i





